Saskatchewan
Community Services

Fire Commissioner's
Branch

Annual Report
1991-1992

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Fire Commissioner's Message

I'm pleased to present the 1991 Saskatchewan Fire Commissioner's Report. Fire losses are reported for the 1991 calender year, while other information is provided for the 1991-92 fiscal year. Provincial fire prevention officers, fire chiefs, police, coroners, insurance companies, municipal administrators and the news media provided information contained in this report. I would like to thank them for the time they took to make this information available.

Saskatchewan has had an Office of the Fire Commissioner since 1916. The role of the commissioner continues to be the reduction of the loss of life and injuries from fire, and the reduction of the number of fires and loss of property from fires. Staff of the Fire Commissioner achieve this by:

- providing public education on fire prevention and appropriate reaction to fires,
- inspecting buildings to identify and eliminate fire hazards and life threatening situations,
- investigating causes of fires,
- training fire services to respond to emergencies,
- reviewing building plans to ensure fire safety in building design,
- developing standards on fire fighting equipment and fire training,
- researching methods of fire prevention and suppression,
- advising and consulting with people and organizations on all aspects of fire safety.

The Branch's major accomplishments during 1991 included:

- A reduction in fire deaths by 23%, fire injuries by 12% and dollar losses by 11% over 1990,
- the start of a Branch Strategic Plan,
- establishment of the Fire Services Advisory Committee (FSAC),
- Certification of the Level 1 Fire Fighter training course,
- hosting the national conference of Canadian Fire Marshalls and Fire Commissioners,
- preparation of amendments to *The Fire Prevention Act (the Act)*,
- increased number of training courses for fire fighters in Saskatchewan.

The future holds even more challenges. Initiatives for 1992-93 will include:

- completion of the Strategic Plan to provide direction on policies and programs,
- increased emphasis on preventing fires through public awareness and improved inspection of buildings,
- reorganizing the Branch to better respond to client needs and the changing role of the fire service,
- strengthening local autonomy in decision making and service delivery including inspections, public education and training,
- development of provincial standards through the adoption of the National Fire Code,
- more consultation and partnerships with people and groups involved in fire safety,
- improved communication externally and internally.

1992-93 promises to be a challenging year for the Fire Commissioner's Branch. Reorganization of the Branch and building stronger partnerships with people involved in fire prevention will help to pursue the goal of elimination of deaths, injuries and dollar loss due to fire in the province.

Rick McCullough
Fire Commissioner

Quick Facts

- 2929 fires causing $38,707,867 in property losses (an average of eight fires and $100,000 in losses per day),

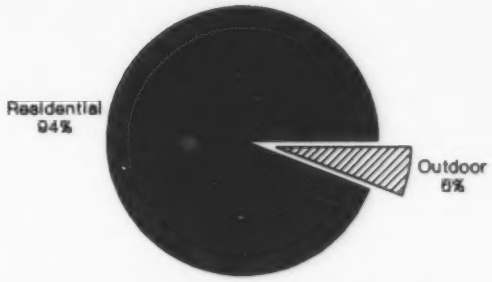


Figure 1 1991 Fire Deaths by Property Use

- 17 fire related deaths, 16 in residences,
- 85 injuries,
- 41% of fire deaths were caused by use of smoking materials such as cigarettes,
- 2017 buildings inspected,
- 90 fires investigated by the Branch,
- 526 fire departments registered in the province,

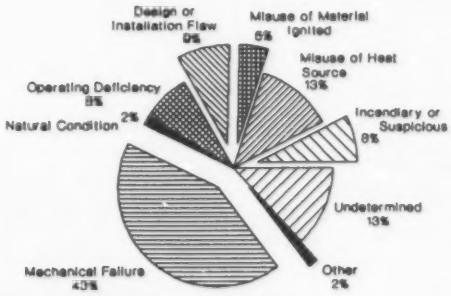


Figure 2 1991 Fires by Cause

- 850 career fire fighters and over 7000 volunteers,
- 10 mutual aid areas,
- 198 training and educational courses held for fire fighters from over 400 communities,
- over 5000 training certificates issued to fire fighters

Important Issues

National Fire Code

The fire at the Grand Coulee waste agricultural chemical transfer site, located in the RM of Sherwood, 13 kilometres west of Regina, on November 20th, 1991 provided impetus for changes to legislation and regulations in a number of areas. The report on the fire made several recommendations, including adoption of the National Fire Code by Saskatchewan. The Fire Commissioner was appointed to the team overseeing the implementation of this and other recommendations of the report.

Loss of Lives and Property in Fires

Saskatchewan continues to bear a high loss of life and property damage due to fire. The 2929 fires in 1991 caused over 38 million dollars damage. The yearly average over the last ten years is 2926 fires and 32 million dollars damage. In fact, over the last forty years the figures have not changed significantly. In 1991, 17 people died in fires, 16 in residences. Residential fires also accounted for 55% of injuries, 28% of the losses and 27% of fires. These statistics indicate a need for increased emphasis on prevention of fires, especially in residences. In addition, incendiary or suspicious fires accounted for almost 8% of fires, 16% of fire losses and two deaths in 1991. These fires increased by 5% over 1990. Possible arson fires have significantly increased in numbers and dollar loss since 1984.

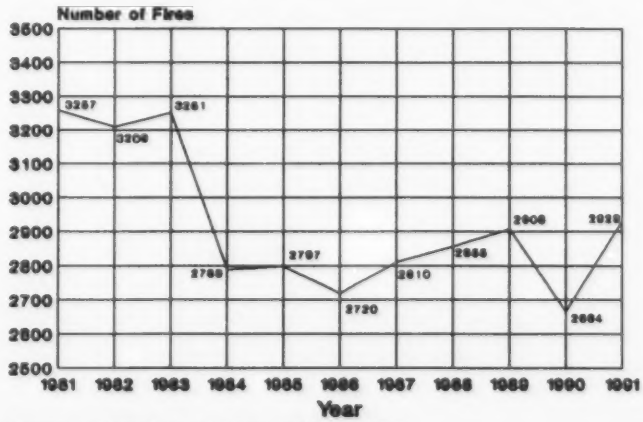


Figure 3 Number of Fires 1981 - 1991

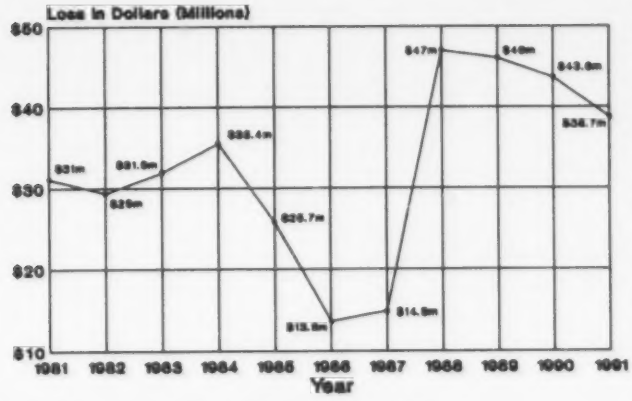


Figure 4 Annual Fire Losses 1981 - 1991

Real Cost of Fires

The direct cost of fires, such as damage to buildings and property from fire and smoke, is usually easy to determine. However, indirect losses are not usually accounted for in assessing fire losses. Examples of indirect losses include loss of earning powers, legal costs, medical costs, costs of suppression and increased insurance premiums. Some attempts have been made to relate indirect costs of fire to the direct costs. This is difficult since detailed statistical data are

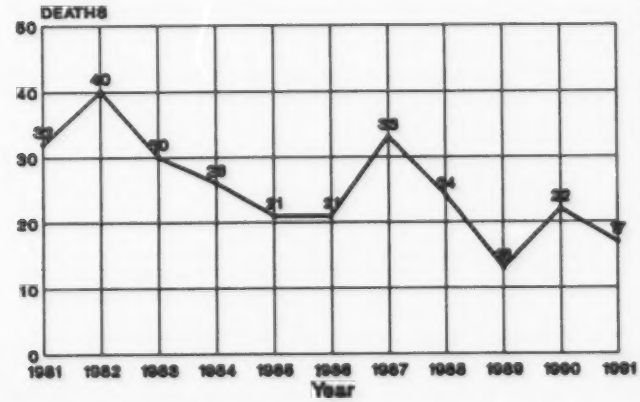


Figure 5 Fire Deaths, 1981 - 1991

not available, especially since some indirect costs can't be measured in dollars. However, it is expected that indirect costs are substantial, and may be much higher than the direct costs.

Estimates range from indirect costs equalling direct costs to the indirect costs being nine times the direct costs. Including the indirect costs of fires in calculations would show the real severity of the fire problem in Saskatchewan.

Branch Functions

Role

The current responsibilities of the Fire Commissioner are established in Section 4 of *The Fire Prevention Act (The Act)*. The duties of the Fire Commissioner are:

- to foster fire prevention;
- to collect and distribute information on fires;
- to investigate and hold inquiries on the causes of fires;
- to inspect buildings for compliance with fire regulations;
- to provide training in fire fighting and prevention; and
- to conduct surveys and make recommendations on fire equipment and prevention.

The Fire Commissioner's Branch is responsible for enforcement of *The Act* and its regulations in areas including building design and operation, storage and handling of flammable liquids, oil burners, solid fuel burning appliances and automatic sprinklers. The Branch is also responsible for the fire safety aspects in regulations made under other department's legislation. The Branch ensures *The Act* and regulations are up to date and workable.

The Branch's main function is to prevent fires through public education, inspections, plans review and development of regulations and standards. Training of fire fighters in emergency response is another important function of the Branch.

Through investigations of fires, the Branch identifies causes and problems on fires in the province. This helps in developing programs and activities for fire prevention and protection, and determines how resources should be allocated.

Staff of the Branch advise and consult with municipal governments, local fire departments, government departments and agencies, engineers, police, architects, building contractors, insurance industry and the general public on issues of fire prevention and safety.

Organization and Operation

In 1991 the Branch had two divisions: training and inspections. There were 19 staff including the Fire Commissioner, the Manager of Inspections and Investigations, 13 Fire Prevention Officer's (five in training, eight in inspections), a Statistics Clerk, and three Clerical support. *Figure 6* shows the Branch organization for 1991-92.

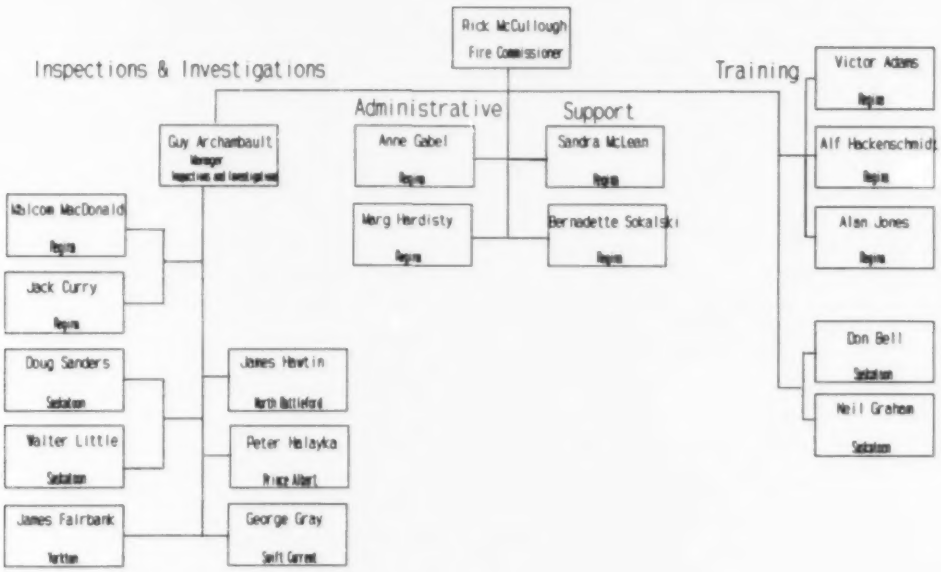
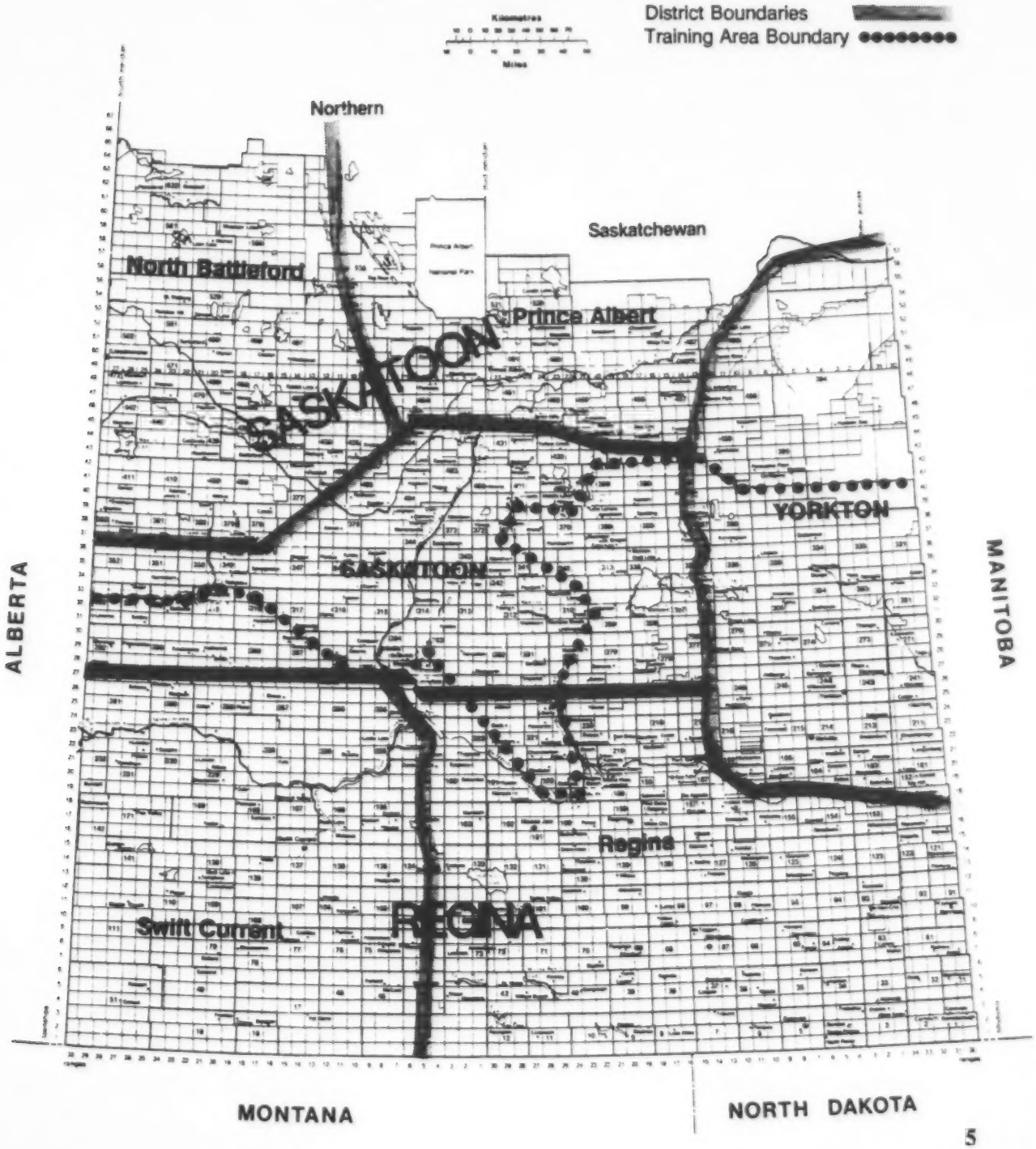


Figure 6 Fire Commissioner's Branch Organization 1991 - 92

The main office is located in Regina with five district offices located in Swift Current, Yorkton, Prince Albert, North Battleford and Saskatoon. The province is divided into eight districts (both the Saskatoon and Regina office have two districts) for inspections and investigations, and two for training. Inspections and investigations operate out of all offices. Fire Prevention Officers responsible for training operate out of Regina and Saskatoon. This group develops and delivers education courses to fire fighters and other groups in the province. Fire Prevention Officers in Inspections and Investigations visit and inspect buildings for compliance with fire regulations, and visit fire scenes to determine causes and other facts on the fire. The map shown in *Figure 7* shows the areas and districts for 1991.

Figure 7
Saskatchewan Fire Commissioner's Branch
1991 - 92 Districts and Areas



Activities

Prevention

Lives and property can be best saved from fire by preventing fire from occurring. Taking a proactive approach to fire prevention is a critical role for the Fire Commissioner's Branch. Important functions in this area are:

- educating people to stop fires from starting, as well as how to react in the event one occurs. This is done by using videos, public advertising, demonstrations and meetings. The Branch also helps to train local people to carry out education in their communities.

- ensuring buildings are designed, built and operated properly; and that equipment in buildings is installed and used properly. This is done through building inspections, consultations and plans review.

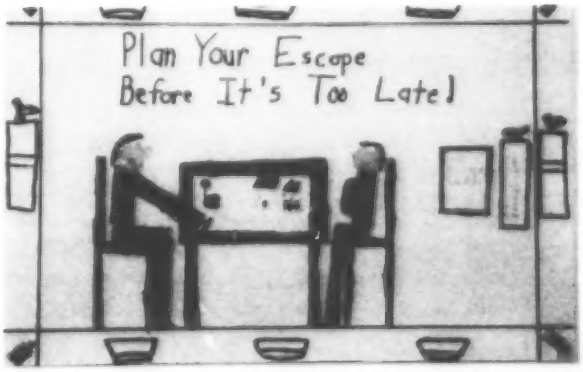
Table 1
Selected Fire Prevention Activities
April 1, 1991 to March 31, 1992

	Number	Attendance
Meetings		
General Public	114	1,055
Fire Chief's & Departments	194	558
Building Design	196	n/a
Lectures		
Schools	227	15,552
Health Care Facilities	66	1,581
Civic & Seniors Groups	11	355
Special Courses	9	168
Other Courses	427	15,882

Public Education

Public education is the most significant method to save lives and property from fire losses. Misuse of heat sources or ignited material caused 17% of all fires, and 53% of fires resulting in deaths. Smoking materials, such as cigarettes, were the heat source in over 40% of fires involving deaths. The objectives are, first, to prevent fire, and second, to ensure that people get out alive if a fire does start. Education on fire prevention has been directed at school age children, senior's groups and fire service personnel. Public education activities for 1991-92 are shown in *Table 1*.

Fire Prevention Week, which is part of an international campaign, is an important public education effort, especially for fostering fire prevention among young people. The campaign is conducted in cooperation with fire departments and schools across the province. Fire Prevention Week was held from October 6th to 12th. The theme was **"Fire Won't Wait - Plan Your Escape."** The poster competition, held in schools during the week involved 2851 children in designing theme posters. Forty prizes were awarded in four divisions; special education, Kindergarten to grade three, grades four to six and grades seven to nine; for both urban and rural categories.



The Branch also maintains an extensive library of materials and videos on fire prevention and education for all ages and interest groups. New materials are being added on a regular basis. These are available for use by organizations. A catalogue of the materials is available from the Branch.

Public Education Works

Public education programs work to save lives. This was demonstrated in Melville. As a result of the "Learn Not to Burn" program seven year old Bradley Markham and his family got out of their home alive when a fire started. The "Learn Not to Burn" program was provided to the Grade Two class in Melville's Davison School. When he came home he got his parents involved. "I told my mom and dad to put a battery in the smoke detector and have a fire drill," said Bradley.

On January 31, at 3:30 a.m. the smoke alarm went off, thanks to the new battery that had been put in. The family woke up and calmly and quickly got dressed then crawled out of the house on their hands and knees, just as they had practised in their fire drill.

"We would have been overcome by smoke if the detector hadn't gone off," said Rick, Bradley's father.

Inspections

Buildings are inspected to determine if they are being operated in a manner which prevents fires, and allows easy escape in the event of an emergency. Fire inspectors are able to point out, and if necessary order, unsafe conditions to be remedied. Other benefits of inspections include fire preplanning for buildings, ensuring emergency access is provided, and that proper materials are used in construction.

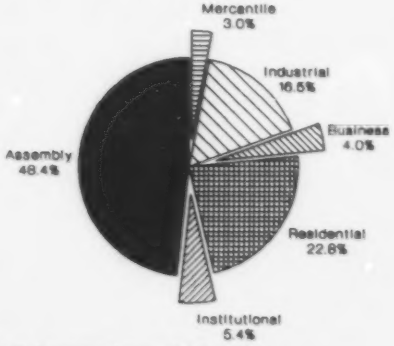


Figure 8 Inspections 1990 - 91

Inspections are carried out by staff of the Branch in smaller communities. Where communities have paid departments they carry out their own inspection programs. Inspections by Branch staff include all buildings except private homes. Automatic sprinkler systems and solid fuel burning appliances are inspected as well.

Table 2 shows inspection activities for 1991. Of the over 2000 inspections, almost 60% involved institutional and public assembly buildings, 22% were residential type buildings excluding one and two unit residences. *Figure 8* shows inspections conducted by type of structure.

Orders were issued to correct deficiencies in less than 10 per cent of the inspections. Blocked exits were one of the most common problems noted in building inspections. *Figure 9* shows orders issued by type of structure.

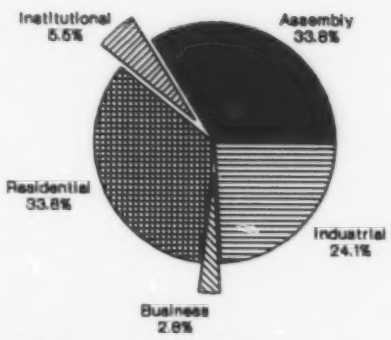


Figure 9 Orders Issued 1990 - 91

Regulatory

Other regulatory functions which help prevent fires include building plan review and consultation with architects and engineers on building design. This ensures proper materials are used in construction and that layouts provide easy escape in case of emergency as well as access by fire services for suppression. In 1991, 122 consultations took place and 58 building plans were reviewed for fire safety. In addition the Building Standards Branch reviewed 822 plans for the Fire Commissioner. The Branch also issues licenses for oil burners to ensure safe operation.

Table 2
Inspection Activities
April 1, 1991 to March 31, 1992

Activity	Number
Routine Inspections	88
Special Inspections	733
Re-inspections	352
Automatic Sprinklers	30
Solid Fuel Burning Appliances	52
Total Inspections	2017
Total Orders Issued	145

Training

Ensuring that fire fighters in Saskatchewan are properly trained to respond to emergency situations is an important function of the Branch. Training courses are operated in cooperation with organizations such as Saskatchewan Volunteer Fire Fighters Association (SVFFA) and the Emergency Measures Organization (EMO). Fire training courses were held for fire fighters from over 400 communities during the year. *Table 3* shows some of the training activities for 1991.

The Branch continues to certify Fire Fighters to NFPA standard 1001 (1987) through National Professional Qualifications Board. Fire fighters from Regina, Yorkton, North Battleford, Prince Albert and Weyburn have been certified. The Prince Albert Fire Department succeeded in having its entire staff certified as Level 1 in 1991.

The Fire Commissioner is a member of Saskatchewan Professional Qualifications and Standards Board. This board sets province wide training standards for career fire fighters and fire officers.

Table 3
Fire Fighter Training Programs in Saskatchewan,
April 1, 1991 to March 31, 1992

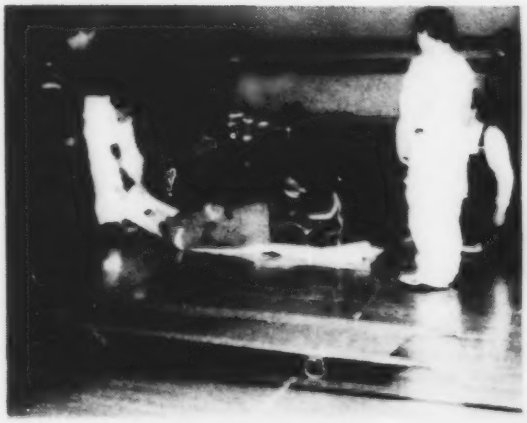
Type of Course	Number Held	Attendance
Certified School	89	1698
Regional Fire School	21	1693
Fire Schools	8	105
Modular Presentations	10	170
Instructor Courses	9	106
Miscellaneous Courses	61	1185

Branch staff served as instructors at the Alberta Fire Services Training School during 1991. This arrangement will allow staff and possibly other Saskatchewan fire fighters to take training there.

The Branch library has training videos and materials covering fire fighting methods, techniques and equipment. These are available for loan to local departments for training purpose. This library is constantly being upgraded and updated to ensure that the most recent materials are available.

A major accomplishment in 1991 was the certification of the Fire Fighter Level 1 course. The Branch completed the fire fighting modules contained in the program during 1991.

Fire Service Instructor Courses were held in Moose Jaw, North Battleford, Prince Albert, Regina and Yorkton. This course allows local fire departments to conduct their own training programs, as well as assist the Branch in delivering programs to other departments. Providing more qualified instructors will allow for improved and more regular training of fire fighters. Eighty municipal fire departments are now delivering the Level 1 training modules on their own. This number will increase, and eventually all local departments will be capable of delivering their own training programs.



Investigations

Investigations are conducted on all reported fires to determine the cause, origin and circumstances surrounding the fires.

In 1991 the ignition factor was undetermined in 29% of the fires involving deaths; in 25% of fires the heat source was undetermined. The are also a large number of unreported fires which are not investigated. It is a goal of the Fire Commissioner to have all fires reported and investigated.

Investigations are carried out by staff of the Branch, local assistants, insurance agencies, police or a combination of these people. Finding out the cause of fires is important to plan prevention programs, develop design standards, and target problem areas. Prosecution and prevention of arson requires full and accurate investigations. Incendiary or suspicious fires accounted for almost 8% of fires in 1991.

The figures in this report provide an overview of the incidents reported on in 1991. Tables in the appendix provide more detailed information.

Fires

The number of fires in 1991 increased by 265 over 1990. The trend since 1986 shows an increase in the annual number of fires. Vehicle fires accounted for 47% of fires while structural fires made up 45%.

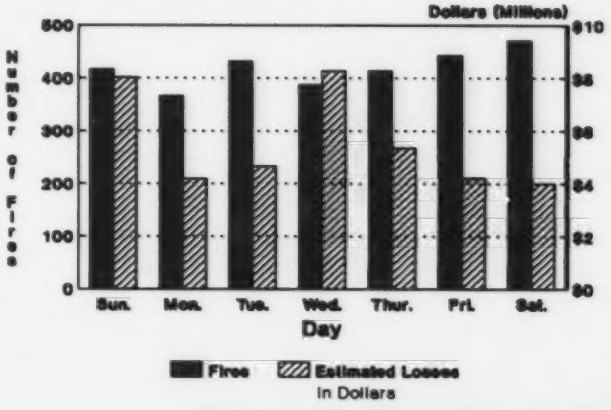


Figure 11 1991 Fires by Day of the Week

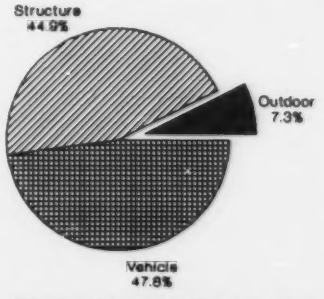


Figure 12 1991 Fires by Type

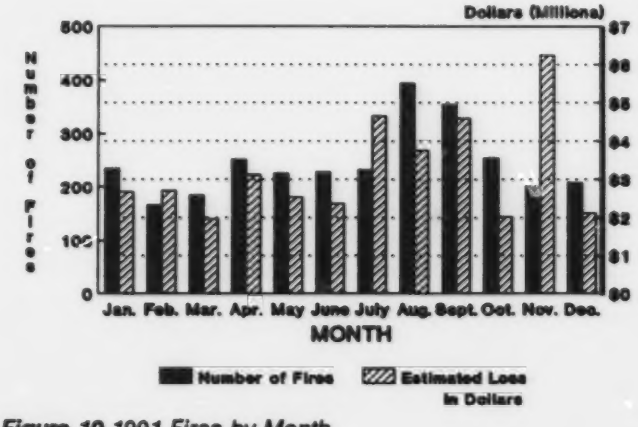


Figure 10 1991 Fires by Month

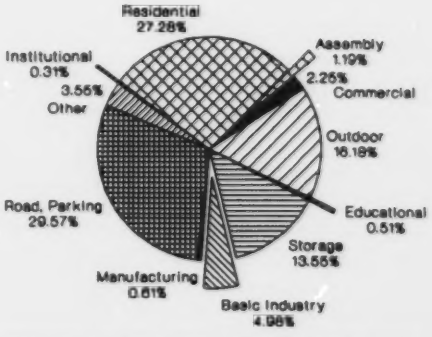


Figure 13 1991 Fires by Use of Property

Causes

Mechanical failure was the cause of 42% of fires. However, human carelessness was the cause of 70% of fires resulting in deaths. Misuse of heat sources (cigarettes, matches) accounted for 53% of these fires.

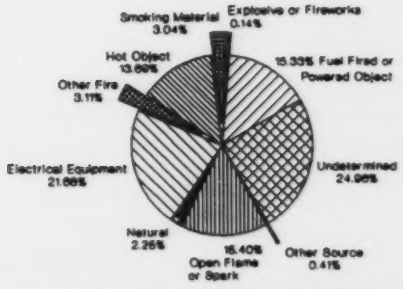


Figure 14 1991 Fires by Ignition Source

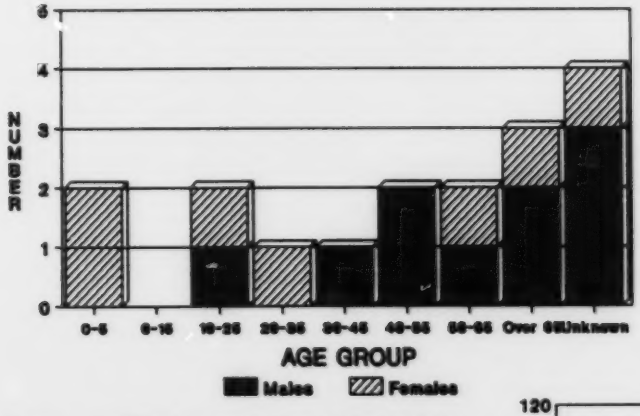


Figure 15 1991 Age and Sex of Fire Deaths

Deaths

1991 showed a further decline in the number of fire related deaths, dropping from 22 to 17. This continues the overall trend since 1981. Structural fires, especially residences continue to account for most of the fire deaths. Males make up the majority of the victims (53%).

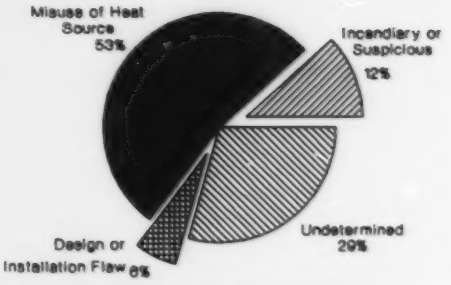


Figure 16 1991 Deaths by Cause of Fire

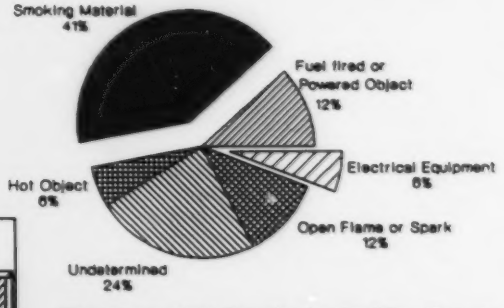


Figure 17 1991 Deaths by Ignition Source

Injuries

Injuries caused by fires show a decrease since 1989. 1991 showed a further decline from 1990, but injuries are still above average for the last ten years. Most injuries (72%) were in structures, and 77% were males.

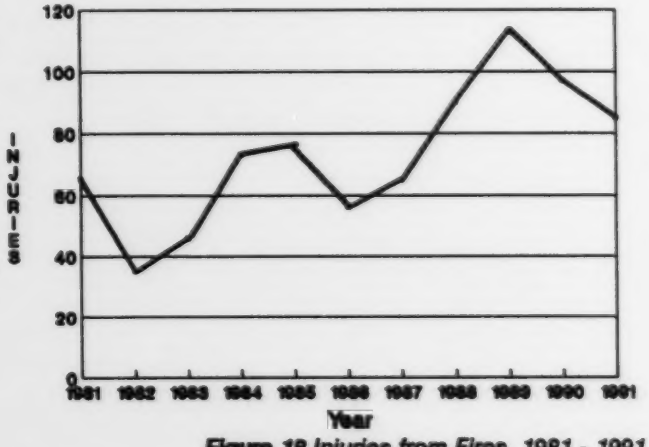


Figure 18 Injuries from Fires, 1981 - 1991

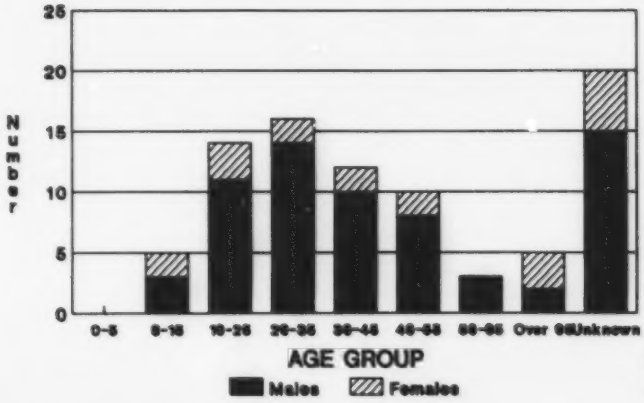


Figure 19 1991 Age and Sex of Fire Injuries

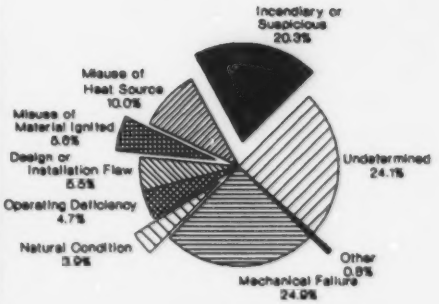


Figure 22 1991 Estimated Losses by Cause of Fire

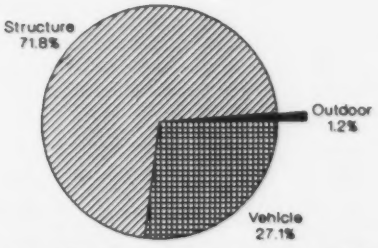


Figure 20 1991 Fire Injuries by Type of Fire

Estimated Dollar Losses

Dollar losses decreased by almost five million dollars from 1990, but the $38 million lost in 1991 remains higher than average for the last ten years. Total dollar losses show a decline since 1988. Structural fires accounted for almost 80% of the estimated dollar losses.

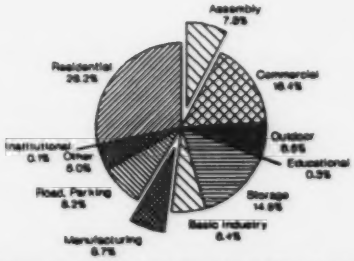


Figure 21 1991 Estimated Fire Losses by Property Use

Partnerships

The Fire Commissioner's Branch established working partnerships with other groups interested in fire prevention and protection. These cooperative efforts are intended to get the public, local organizations and other stakeholders more involved in fire prevention and safety efforts. Such partnerships are critical to the future delivery of services and programs.

Fire Services Advisory Committee

The Fire Services Advisory Committee (FSAC) was established in 1991. It is made up of groups with common interests in preventing fires and protecting life, property and the environment. The FSAC provides them with a forum to discuss problems and initiatives common to fire and life safety, and to make recommendations in areas where a need for provincial action is identified.

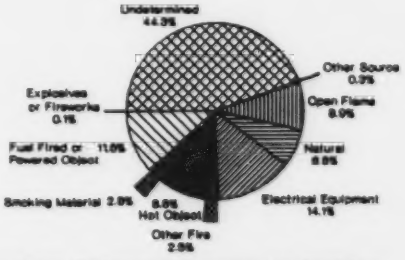


Figure 23 1991 Estimated Losses by Ignition Source

Initial membership on the FSAC includes the Saskatchewan Association of Fire Chiefs, Saskatchewan Volunteer Fire Fighters' Association, Saskatchewan Professional Fire Fighters' Association, Saskatchewan Urban Municipalities Association, Saskatchewan Association of Rural Municipalities, Saskatchewan Building Officials' Association, Emergency Measures Organization, International Association of Arson Investigators, Saskatchewan School Trustees' Association, Insurance Industry, Royal Canadian Mounted Police, Department of Indian and Northern Affairs and City Commissioners. The Fire Commissioner is chairman of the Committee.

The Committee held three meetings during 1991-92. A subcommittee was established to investigate the matter of residential sprinkler systems. Other issues raised included development of a fire prevention communications program and collection of statistical information on fires.

Saskatchewan Volunteer Fire Fighters' Association

The recently formed SVFFA provided another opportunity for partnerships. Staff of the Branch cooperated with this organization in development and delivery of regional fire fighter training courses. This has significantly increased the amount of training available to volunteers. A variety of training programs are offered. The Branch will continue to work with the SVFFA in this area.

Research

The Branch has been examining the issue of sprinklers for one and two unit residential dwellings. In 1991 the FSAC joined with the Fire Commissioner's Branch in this effort. The costs of installation in new buildings, and of retrofitting existing buildings as well as the effectiveness of the systems is being looked at. A report is expected in 1992.

Administration

Revisions to *The Act* and regulations were started in 1991-92. Changes to the legislation resulted from a need to ensure safe construction and operation of new buildings and retrofitting of existing buildings. The revised Act will increase the authority of fire chiefs to discharge their responsibilities.

The FSAC noted concerns with the collection of provincial fire statistics. Accurate and consistent reporting of fires is critical to developing prevention programs. A review of statistical gathering methods and computer program was started.

The branch embarked on a strategic planning exercise in November of 1991. With changing role of fire services and changing client needs, the Branch felt a clear direction for future activities and roles is needed. The plan will be implemented in 1992.

Future Challenges

Total elimination of destructive fires through prevention will be one of the main objectives of the Branch. The continued loss of life and property from fires, especially in residential settings cannot be ignored. More resources will be devoted to preventing fires.

Public education is, and will continue to be, the key to successful prevention efforts. Getting fire safety education and training to all Saskatchewan communities is critical to successful public education efforts. The Branch will work with the FSAC to develop a communications plan

encompassing mass media, special campaigns, schools, corporate sponsors, and local people.

Another prevention method is the regular inspection of buildings. Having local assistants carry out this role will provide more regular and effective building inspections. Expanded review of building plans will also assist in development of fire safe buildings.

In future the Branch will move away from direct service delivery. Local people will be trained, and supported, to deliver services and programs in their own communities. More fire departments will provide their own training. The Fire Commissioner's Branch will continue to provide materials, standards and certification as well as help with delivery where requested.

Training will be a key component of future directions for the Branch. This is especially important with the changing role of the fire service. Fire departments no longer solely deal with fire suppression. New roles are developing such as rescue, hazardous goods response, medical emergencies as well as prevention techniques. Fire fighters will need more training to protect people, property and the environment.

The delivery of more services and programs, such as prevention, inspections and investigations, at the local level will require capable people. Training will have to be provided to ensure they are available.

Partnerships and cooperation among groups interested in fire prevention and safety will become critical. The need to involve a broad base of people and organizations is necessary because of limited resources. The FSAC will grow as an important tool to develop and bring forward recommendations. The Branch will establish working relationships with other groups to deliver programs.

The native community is a significant portion of Saskatchewan's population. Prevention campaigns and training programs will have to be extended to these communities to help deal with fire problems. The Branch will seek to establish partnerships with native organizations.

The Branch will be responsible for ensuring the quality of services and programs through development of provincial standards and guidelines. Stakeholders will be consulted to ensure that the standards are workable. The adoption of the National Fire Code will assist in having consistent standards. Areas where standards are being considered include fire equipment maintenance and inspection and training.

Standards will also be needed in statistics gathering and analysis. The cooperation of the police, local fire departments, the insurance industry, the media and other groups will be essential in the reporting and investigation of all fires. It will be necessary to ensure the information is collected in an accurate and consistent manner. This will require development of new forms and statistical packages.

The Fire Commissioner will provide leadership through development and monitoring of the standards and programs throughout the province. Working in close cooperation with the other parties, efforts will see the elimination of fire deaths and losses.

To meet the future challenges, the Branch itself will have to change. The implementation of the Strategic Plan in 1992 will reflect the changes. Reorganization of the Branch will provide a more flexible and responsive organization to meet our client needs.

APPENDIX 1
TABLES

Table I Annual Fires Losses 1981 to 1991				
Year	No. Fires	Estimated Dollar Loss	Injuries	Deaths
1981	3257	$31,138,114	65	32
1982	3209	$29,361,627	35	40
1983	3251	$31,920,418	46	30
1984	2789	$35,469,311	73	26
1985*	2797	$25,747,955	76	21
1986*	2720	$13,603,615	56	21
1987*	2810	$14,808,533	65	33
1988	2855	$47,038,700	90	24
1989	2908	$46,066,565	113	13
1990	2664	$43,671,241	97	22
1991	**2929**	**$38,707,867**	**85**	**17**
Average	2926	$32,503,086	73	25

* Insufficient data, figures for these years are not complete and accurate

Table II 1991 Fires by Type of Incident Reported				
Type of Incident	Number	Estimated Dollar Loss	Injuries	Deaths
Outdoor	214	$1,468,088	1	1
Structure	1314	$30,057,52	61	16
Vehicle	1401	$7,182,25	23	0
TOTAL	2929	$38,707,867	85	17

Table III 1991 Fire Casualties by Age and Sex				
	Injuries		Deaths	
Age	Male	Female	Male	Female
0-5	0	0	0	2
6-15	3	2	0	0
16-25	11	3	1	1
26-35	14	2	0	1
36-45	10	2	1	0
46-55	8	2	2	0
56-65	3	0	1	1
Over 65	2	3	2	1
Unknown	15	5	3	1
TOTAL	66	19	10	7

Table IV 1991 Fires and Losses by Property Type				
Property Use	Fires	Estimated Dollar Loss	Injuries	Deaths
Residential	799	$10,896,656	44	16
Institutional	9	$23,470	0	0
Other	104	$1,932,314	3	0
Road, Parking	866	$3,177,390	12	0
Manufacturing	18	$2,598,619	1	0
Basic Industry	146	$2,495,249	2	0
Storage	397	$5,631,700	8	0
Educational	15	$101,000	1	0
Outdoor	474	$2,497,801	5	1
Commercial	66	$6,343,241	5	0
Assembly	35	$3,010,427	4	0
TOTAL	2929	$38,707,867	85	17

Table V 1991 Fires by Ignition Factor (Cause)				
FACTOR	Fires	Estimated Dollar Loss	Injuries	Deaths
Incendiary/Suspicious	222	$7,873,986	10	2
Misuse of Heat Source	367	$3,865,582	19	9
Material Misuse	136	$2,184,804	13	0
Design, Installation Flaw	251	$2,137,836	7	1
Operating Deficiency	228	$1,827,246	15	0
Natural Condition	49	$1,519,059	0	0
Mechanical Failure	1246	$9,651,531	14	0
Other	47	$309,303	0	0
Undetermined	383	$9,338,520	7	5
Total	2929	$38,707,867	85	17

Table VI 1991 Fires by Source of Heat of Ignition				
Form	No. Fires	Estimated Dollar Loss	Injuries	Deaths
Fuel fired/powered object	449	$4,475,588	20	2
Explosive/Fireworks	4	$22,165	1	0
Smoking Material	89	$1,093,221	3	7
Hot Object	401	$3,327,350	12	1
Other Fire	91	$966,897	2	0
Electrical Equipment	635	$5,473,280	5	1
Natural	66	$2,624,409	1	0
Open Flame/Spark	451	$3,457,240	11	2
Other Source	12	$104,690	3	0
Undetermined	731	$17,163,027	27	4
Total	2929	$38,707,867	85	17

Table VII 1991 Fire Losses by Area of Fire Origin				
Area of Origin	Fires	Estimated Dollar Loss	Injuries	Deaths
Means of Egress - hallway, stairway, entrance way	42	$486,818	1	0
Assembly, Sales Area - rinks, living room, library	129	$4,846,242	17	7
Function Area - bedroom, kitchen, office, laboratory	465	$7,099,288	26	7
Storage Area - closet, loading bay, vault	237	$5,407,445	4	1
Service Facilities - duct, chimney, conveyor	44	$214,068	1	0
Service Equipment Areas - machinery room, furnace room	81	$5,234,029	8	0
Structural Areas - crawl space, wall assembly, awning	224	$4,324,108	3	0
Transportation, Vehicle Area - trunk, engine, passenger area	1382	$7,636,343	17	0
Other Area of Origin - public street, patio, field	239	$1,425,662	5	1
Area of Origin Undetermined	86	$2,033,864	3	1
TOTAL	2929	$38,707,867	85	17

Table VIII 1991 Fire Losses by Day of Week		
Day	Number	Estimated Dollar Loss
Sunday	417	$8,031,111
Monday	366	$4,181,089
Tuesday	432	$4,668,287
Wednesday	387	$8,265,130
Thursday	413	$5,351,795
Friday	443	$4,201,609
Saturday	471	$4,008,846
TOTAL	2929	$38,707,867

Table IX 1991 Fire Losses by Month				
Month	Number	Estimated Dollar Loss	Injuries	Deaths
January	234	$2,665,524	4	3
February	166	$2,697,759	8	2
March	184	$1,963,025	5	4
April	251	$3,118,827	10	0
May	225	$2,534,537	4	0
June	228	$2,358,715	8	1
July	232	$4,653,395	8	0
August	393	$3,761,436	9	1
September	353	$4,598,342	5	2
October	253	$2,014,164	8	0
November	202	$6,243,030	12	3
December	208	$2,109,347	3	1
TOTAL	2929	$38,707,867	85	17

Table X 1991 Fires With Estimated Losses $500,000 and Over						
Community	Date	Property Use	Cause	Estimated Dollar Loss	Injuries	Deaths
Saskatoon	April 25	Church	Suspicious	$1,100,000	1	0
Regina	May 22	Junk Yard	Suspicious	$1,000,000	0	0
Regina	July 7	Trailer sales	Suspicious	$2,372,180	0	0
Colonsay district	August 8	Mining operation	Electrical failure	$500,000	0	0
North Battleford	Sept. 3	restaurant	Paint products	$750,000	0	0
Debden	Sept. 4	Grain elevator	Undetermined	$1,300,000	0	0
Jan Lake	Nov. 3	Aircraft	Short Circuit	$1,000,000	0	0
Saskatoon	Nov. 5	Mall	Suspicious	$600,000	1	0
Weyburn district	Nov. 13	Manufacturing operation	Undetermined	$2,000,000	1	0

Table XI 1991 Fire Losses by Fixed Property Use				
Fixed Property Use	Fires	Estimated Dollar Loss	Injuries	Deaths
Assembly Property				
Fixed Use Amusement, Recreation Places	4	$403,815	0	0
Variable Use Amusement, Recreation Places	4	$104,134	0	0
Churches, Funeral Parlours	6	$1,328,000	1	0
Clubs	1	$162,000	0	0
Libraries, Museums, Court Rooms	1	$9,750	0	0
Eating, Drinking Places	19	$1,002,728	3	0
Passenger terminals	0	0	0	0
Theatres, Studios	0	0	0	0
Assembly Property: Unclassified	0	0	0	0
Sub-Total	35	$3,010,427	4	0
Educational Property				
Non-residential Schools	7	$19,650	0	0
Residential Schools	2	$1,000	0	0
Trades, Business Schools	0	0	0	0
College, Universities	2	$250	0	0
Educational Property: Unclassified	4	$80,100	1	0
Sub-Total	15	$101,000	1	0
Institutional Property				
Care of the Aged	1	$1,000	0	0
Care of the Young	1	$950	0	0
Care of the sick or injured	4	$20	0	0
Care of the Physically Restrained	0	0	0	0
Care of the Physically Inconvenienced	2	$1,500	0	0
Care of the Mentally Handicapped	1	$20,000	0	0
Institutional Property: Unclassified	0	0	0	0
Sub-Total	9	$23,470	0	0

continued

Table XI, continued

Table XI 1991 Fire Losses by Fixed Property Use				
Fixed Property Use	Fires	Estimated Dollar Loss	Injuries	Deaths
Residential Property				
One and two Unit Dwellings	691	$9,827,448	31	15
Apartments, Tenements, Flats	89	$837,987	13	1
Rooming, Boarding, Lodging Houses	2	$73,871	0	0
Hotels, Motels, Inns, Lodges	10	$146,700	0	0
Dormitories	1	$5,000	0	0
Home Hotels	1	0	0	0
Other Residential Occupancies	2	$2,150	0	0
Residential Property: Unclassified	3	$3,500	0	0
Sub-Total	799	$10,896,656	44	16
Store, Office Property				
Food, Beverage Sales	4	0	1	0
Textile, Wearing Apparel Sales	1	0	0	0
Household Goods Sales, repairs	2	$475,000	0	0
Specialty Shops	2	$6,500	0	0
Recreation, Hobby or Home Repair: Supply, Sales & Service	4	$234,600	0	0
Professional Supplies, Service	3	$3,200	0	0
Motor Vehicle or Boat Sales, Service	37	$4,300,130	3	0
General Item Stores	3	$867,500	1	0
Offices	9	$272,000	0	0
Store, Office Property: Unclassified	1	$184,311	0	0
Sub-Total	66	$6,343,241	5	0

continued

Table XI 1991 Fire Losses by Fixed Property Use				
Fixed Property Use	Fires	Estimated Dollar Loss	Injuries	Deaths
Basic Industry, Utility, Defense Property				
Nucleonics, Energy Production	1	$90,000	0	0
Laboratories	1	$1	0	0
Communication, Defense, Document Facilities	0	0	0	0
Utility, Energy Distribution Systems	12	$21,690	1	0
Agriculture	106	$746,801	0	0
Forest, Hunting, Fishing	6	$203,285	1	0
Mining, Quarrying of Natural Raw Materials	19	$1,405,745	0	0
Nonmetallic Mineral, Mineral Product Manufacture	0	0	0	0
Basic Industry, Utility, Defense: Unclassified	1	$27,727	0	0
Sub-Total	146	$2,495,249	2	0
Manufacturing Property				
Food	4	$16,500	0	0
Beverages, Tobacco, Essential Oils	1	$200	0	0
Textiles	0	0	0	0
Footwear, Wearing Apparel, Leather, Rubber	0	0	0	0
Wood, Furniture, Paper, Printing	5	$37,000	0	0
Chemical, Plastic, Petroleum	4	$2,340,000	1	0
Metal, Metal Products Storage	2	$3,619	0	0
Vehicle Assembly, Manufacture	0	0	0	0
Other Manufacturing Property	0	0	0	0
Manufacturing Property: Unclassified	2	$201,300	0	0
Sub-Total	18	$2,598,619	1	0

continued

Table XI, continued

Table XI 1991 Fire Losses by Fixed Property Use				
Fixed Property Use	Fires	Estimated Dollar Loss	Injuries	Deaths
Storage Property				
Agricultural Products	132	$2,161,151	0	0
Textiles	1	$200	0	0
Processed Food, Tobacco	0	0	0	0
Petroleum Products, Alcoholic Beverages	4	$150	2	0
Wood, Paper Products	4	$352	0	0
Chemical or Plastic, Chemical or Plastic Products	2	$199,000	0	0
Metal, Metal Products	2	$1,190,000	0	0
Vehicle	165	$1,697,259	4	0
General Item	4	$1,300	0	0
Storage Property: Unclassified	83	$382,288	2	0
Sub-Total	397	$5,631,700	8	0
Special Property				
Construction, Unoccupied Property	53	$535,432	0	0
Special Structures	20	$8,710	0	0
Outdoor Property	474	$2,497,801	5	1
Water Areas	5	$23,000	3	0
Railroad Properties	2	$87,200	0	0
Road, Parking Property	866	$3,177,390	12	0
Aircraft Areas	1	$1,000,000	0	0
Equipment Operating Areas	4	$4,122	0	0
Special Property: Unclassified	19	$273,850	0	0
Sub-Total	1444	$7,607,505	20	1
TOTAL	2929	$38,707,867	85	17

Table XII 1991 Mobile Property Fire Losses				
Type of Vehicle	Fires	Estimated Dollar Loss	Injuries	Deaths
Passenger	682	$1,919,446	7	0
Water	12	$39,450	3	0
Freight trucks	485	$2,192,609	0	0
Air	2	$1,001,814	0	0
Heavy Equipment	169	$1,866,610	2	0
Special	15	$29,356	0	0
Other	35	$127,970	3	0
TOTAL	1400	$7,177,255	15	0

Table XIII Inspections by Property Classification 1983-1992							
Year	Total	Assembly	Institutional	Residential	Business	Mercantile	Industrial
1983-84	5884	2056	176	654	822	627	1549
1984-85	3815	1585	163	685	307	248	827
1985-86	3268	1815	216	631	92	22	492
1986-87	5432	2690	328	965	316	124	1009
1987-88	4915	1908	263	712	435	442	1155
1988-89	3273	1604	236	702	94	71	566
1989-90	4357	2195	270	797	192	136	767
1990-91	2942	1458	240	664	86	49	445
1991-92	2017	976	108	460	81	60	332

Table XIV Inspections and Improvement Orders, 1983 - 1992		
Year	Inspections	Orders
1983-84	5884	757
1984-85	3815	735
1985-86	3268	698
1986-87	5432	861
1987-88	4915	618
1988-89	3273	421
1989-90	4357	464
1990-91	2942	167
1991-92	2017	145

TABLE XV Fire Losses in Saskatchewan Urban Municipalities over 1000 Population Reporting Fires in 1991					
NAME	POPULATION	FIRES	LOSS ($)	INJURIES	DEATHS
Assiniboia	3,001	13	85,222	0	1
Battleford	3,833	12	71,478	1	0
Biggar	2,626	4	17,700	0	0
Canora	2,602	2	6,877	0	0
Carlyle	1,172	3	650	0	0
Carnduff	1,090	3	18,570	0	0
Churchbridge	1,035	6	164,314	0	0
Creighton	1,623	6	2,783	0	0
Cumberland House	1,049	5	80,900	1	1
Dalmeny	1,328	2	4,885	0	0
Esterhazy	3,083	3	40,162	0	0
Estevan	10,161	21	53,312	0	0
Eston	1,383	4	10,835	0	0
Fort Qu'Appelle	1,915	4	700	0	0
Gravelbourg	1,305	2	7,032	0	0
Gull Lake	1,164	4	35,200	0	0

continued

Table XV, continued

TABLE XV
Fire Losses in Saskatchewan Urban Municipalities over 1000 Population Reporting Fires in 1991

NAME	POPULATION	FIRES	LOSS ($)	INJURIES	DEATHS
Hudson Bay	2,133	3	900	0	0
Humbolt	5,089	8	585,836	0	0
Ile A La Crosse	1,253	3	121,000	0	0
Indian Head	1,886	5	57,874	0	0
Kamsack	2,565	3	75,200	0	0
Kelvington	1,084	1	n/a	0	0
Kerrobert	1,288	1	1,440	0	0
Kindersley	4,192	8	24,982	0	0
Kipling	1,033	2	3,650	0	0
La Loche	2,038	2	50,000	0	0
La Ronge	2,702	6	4,188	0	0
Langenburg	1,193	1	n/a	0	0
Langham	1,193	2	3,481	0	0
Lanigan	1,698	2	43,000	0	0
Lloydminster [1]	7,155	17	197,159	0	0
Lumsden	1,369	3	13,959	0	0
Macklin	1,131	2	21,100	0	0
Maidstone	1,112	3	50,929	1	0
Maple Creek	2,452	5	116,000	0	0
Martensville	2,760	4	42,817	0	0
Meadow Lake	3,976	4	15,000	0	0
Melfort	6,078	8	48,657	1	0
Melville	5,123	10	53,937	0	0
Moose Jaw	35,073	85	471,180	0	1
Moosomin	2,557	3	6,300	0	0
Nipawin	4,588	7	57,369	0	0
North Battleford	14,876	31	848,366	3	0
Outlook	2,137	5	55,360	0	1

continued

Table XV, continued

TABLE XV
Fire Losses in Saskatchewan Urban Municipalities over 1000 Population Reporting Fires in 1991

NAME	POPULATION	FIRES	LOSS ($)	INJURIES	DEATHS
Preeceville	1,272	1	3,000	0	0
Prince Albert	33,686	25	230,702	0	1
Regina	175,064	282	6,543,822	10	1
Rosetown	2,663	2	7,000	0	0
Rosthern	1,594	7	278,200	0	0
Saskatoon	177,641	443	4,775,211	26	3
Shaunavon	2,153	4	16,413	0	0
Shellbrook	1,238	5	297,000	0	0
Spiritwood	1,025	1	1,805	0	0
Swift Current	15,666	29	488,702	2	0
Tisdale	3,184	4	500	0	0
Unity	2,471	5	27,350	0	0
Wadena	1,602	1	n/a	0	0
Wakaw	1,010	3	10,000	2	0
Warman	2,455	2	1,715	0	0
Watrous	1,953	2	398,800	0	0
Weyburn	10,153	27	61,037	1	0
Whitewood	1,107	1	3,647	0	0
Wynyard	2,079	4	104,857	0	0
Yorkton	15,574	35	155,051	1	0

[1] Includes only the portion of Lloydminster located in Saskatchewan